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CENTRAL INTELLIGENCE AGENCY
WASHINGTON, D.C. 20505

23 October 1978

MEMORANDUM FOR: Mr. Robert Windsor
Office of Soviet Union Affairs
Bureau of European Affairs
Department of State

SUBJECT : Soviet Single Cell Protein
Exchanges

Attached is our reply to your request concerning
Soviet motivations in exchanges on single cell protein
technology. If you have further questions, do not
hesitate to call.

Office of Economic Research

Attachment
As Stated

ER M 78-10694

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ATTACHMENT

USSR: Single Cell Protein

The USSR has embarked on a program to expand rapidly its production of single cell protein (SCP). Although the technology the Soviets use was probably copied from British Petroleum, the Soviets have otherwise developed their SCP industry on their own. There have been some indications recently that the Soviets want to buy technology and equipment from the West for future expansion of SCP capacity, but it is not clear how serious the Soviets are about buying from the West. It is unlikely, however, that discussions are far enough along that a deal will be signed in the near term

SCP is a bacteria or yeast that is generated from fermentation of substances such as petroleum products or cellulose. Its main use is as a protein supplement in poultry and swine feed rations. It also can be used in pre-ruminant cattle rations. It is not fit for human consumption per se because of a high nucleic acid content; however, a purified protein suitable for humans could be prepared from SCP.

The Soviets have launched a major effort in SCP production. The USSR's SCP production capacity is scheduled to reach 1 million tons by 1980. At least six and possibly

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eight plants are using petroleum as the carbon source for growing yeast SCP now in operation or under construction. The Soviets reportedly have 42 to 50 plants producing SCP on cellulose hydrolyzates. The payoff in meat production could be significant, but the Soviets are having technical production problems and difficulty in purifying SCP grown on petroleum hydrocarbon substrate.

The Soviets have apparently shown some interest in Western technology and equipment for SCP production, but we know of no negotiations that have progressed beyond initial discussions. Officials from British Petroleum -- the firm that developed SCP production processes -- discussed Soviet plans to build six 250,000-ton SCP plants valued at some \$3 billion. There apparently was some discussion about BP's participation, but it is not clear which side raised the possibility, nor have there been any subsequent reports that the discussions have continued. In May 1978 officials of the State Committee for Science and Technology requested that a US oil company submit answers to a number of questions on production of SCP. Apparently the Soviets gave no direct indication at that time that they were interested in buying equipment or technology.

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